

# ERIC COREY FREED

Founding Principal, organic**architect**

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**ericcoreyfreed**

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ericcoreyfreed

FOUNDING PRINCIPAL

organic**architect**

Honorary Fellow, Institute of Green Professionals  
LEED Accredited Professional









Best Green Architect  
2005



WILLIAMS-SONOMA



LIEBHERR

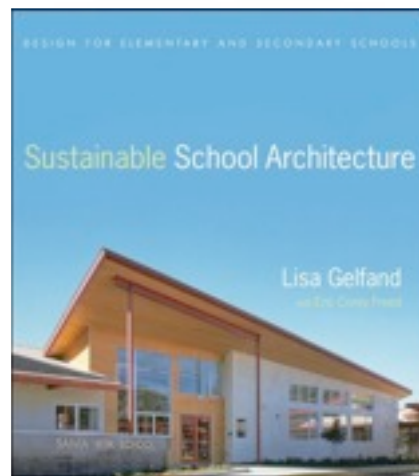
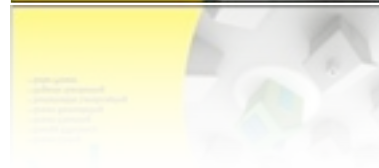
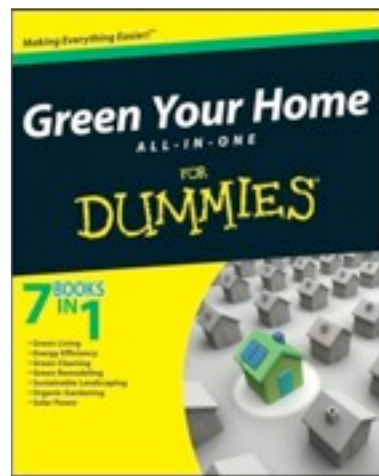
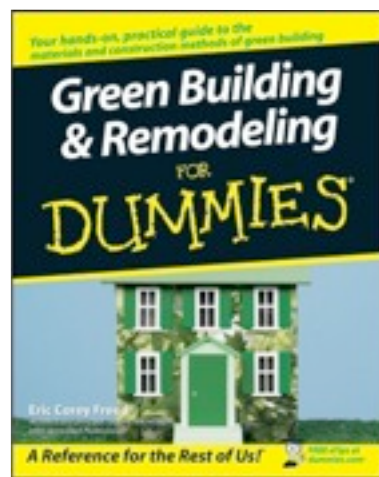


Autodesk











## SEEING GREEN

THE ROOF HOLDS SECRETS AND UNTAPPED POTENTIAL. WHEN IT COMES TO GREEN HOME DESIGN, TRADITIONALLY A PLACE FOR CHRISTMAS LIGHTS AND LOST FRISBEES, THE ROOF OF MOST HOMES COULD POSSIBLY PRODUCE ALL OF A HOME'S ENERGY NEEDS. THIS FEAT OF MAGIC COMES FROM SOLAR PANELS, AN OLD TECHNOLOGY.

SOLAR PANELS (AKA, PHOTOVOLTAIC PANELS, OR PV PANELS) ARE THE LATEST STATUS SYMBOL, ALONGSIDE HYBRID CARS, FOR THOSE WHO LIKE TO SHOW OFF THEIR GREEN APTITUDE. AND WITH GREEN CONSCIOUSNESS ON THE RISE, BARE ROOFS MIGHT GO THE WAY OF THE DINOSAUR. RECENTLY OVERHEARD AT A CONFERENCE: "EVERYONE WHO IS ANYONE PUTS SOLAR ON THEIR ROOFS."

## SOLAR INSPIRATION

WRITTEN BY ERIC CUREY FRIED

## LIGHT YEARS

The Earth receives more energy from the sun in just one hour than the world uses in an entire year.



## CURRENT THINKING

The principle behind a solar panel is simpler than you might expect. French scientist Edmond Becquerel in 1839 first discovered the photoelectric effect—which makes solar power possible. When sunlight strikes the panel's thin wafer of silicon, the electrons get "loosened" and start moving, and this produces electrical current.

Companies are working ways to produce more efficient solar panels, yet all panels essentially use the same type of solar cells used since Bell Labs produced the first silicon solar panels in 1954. Consider this: It is a 53-year-old product based on a 168-year-old scientific discovery. With that kind of history, solar power is hardly a trend or a risky new alternative.







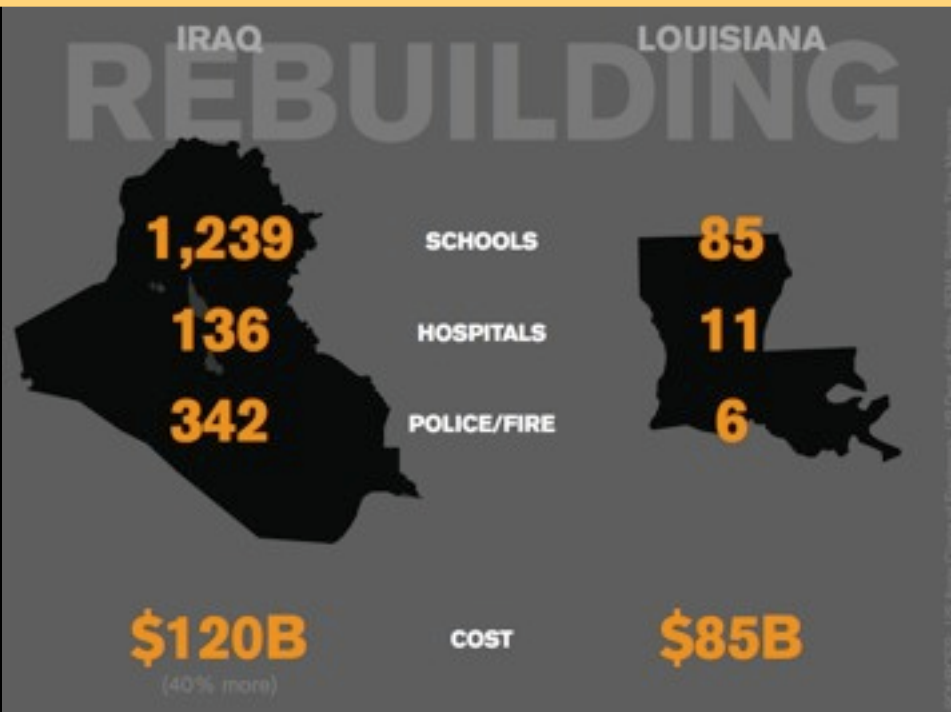




SOURCE: University of Detroit Mercy



SOURCE: Center for Responsive Politics, OpenSecrets.org



SOURCES: US Army Corps of Engineers, US Dept. of State, FEMA, Reuters, Time Magazine



**LIVE**  
SAN FRANCISCO

**Eric Corey Freed**  
ORGANIC ARCHITECT FOUNDER

MARKET ALERT  
9572.16  
140.12  
FOX FIFTY  
11:46 AM ET

INTERNET	TECHNOLOGY	TOP STORIES
AKAMAI (AKAM)	18.78	0.90
S&P	1038.30	18.80
NASDAQ	2873.20	49.22

**Eric Corey Freed**  
Author/Architect

**LIVE**  
7:54 AM PT

**Eric Corey Freed**  
URBAN RE-VISION EXECUTIVE DIRECTOR

FOX FIFTY  
11:46 AM ET

TOP STORIES	WEATHER
UPS (UPS)	57.19
0.03	
DOW	10293.90
38.54	
S&P	1088.75
6.15	
NASDAQ	2139.61
17.21	

**Eric-Corey Freed**  
Author  
Green Buildings for Dummies

greenbuildingsfor.com

**Eric Corey Freed**  
FOUNDER, ORGANIC ARCHITECT

smartplanet

**Eric Corey Freed**  
Executive Director  
organicARCHITECTURE

**LIVE**  
7:54 AM PT

**GREENER TAXES**

FOX FIFTY  
11:46 AM ET

TOP STORIES	WEATHER
CHARLES SCHWAB (SCHW)	18.10
0.21	
DOW	10293.30
38.14	
S&P	1088.75
6.20	
NASDAQ	2139.47
17.35	

**ERIC COREY FREED**

**LIVE**

**GREEN BUILDINGS HAVE HIGHER WORKER PRODUCTIV. IN FACTORIES**

FOX FIFTY  
11:46 AM ET

TOP STORIES	WEATHER
YAHOO! INC (YHOO)	17.34
0.47	
DOW	9570.50
141.78	
S&P	1038.25
18.85	
NASDAQ	2872.96
49.46	





**NEXT** AMERICAN  
CITY  
americancity.org

**Sustainable  
Industries**

**Metropolitan  
Home**

LIVING WISELY > LIVING WELL  
**natural**  
HOME

---

**dwell**

**K+BB** THE OFFICIAL SPONSOR OF KBIS

**common  
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**california**  
HOME+DESIGN

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environmental design + construction

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interiors + design®

The New York Times

San Francisco Chronicle  
NORTHERN CALIFORNIA'S LARGEST NEWSPAPER

  
Marin Independent Journal  
[www.marinij.com](http://www.marinij.com)

 The Desert Sun  
SERVING THE COACHELLA VALLEY SINCE 1927

  
FINANCIAL  
TIMES

  
SAN FRANCISCO

Forbes®  
Entrepreneur®  
MAGAZINE

THE SAN FRANCISCO BAY  
GUARDIAN

FASTCOMPANY

Money  
FOR YOU, YOUR FAMILY, YOUR FUTURE





Green is  
MORE

LESSONS

LEARNED ON A

LEED

PROJECT

**YOUR VISION  
OF LEED**





**HIPPIES**

**USE**

**BACKDOOR**



**NO EXCEPTIONS**

IT'S HARD TO BE AN ENVIRONMENTALIST

the  
**5**  
stages of grief

elisabethkublerross.com



1

# Denial.

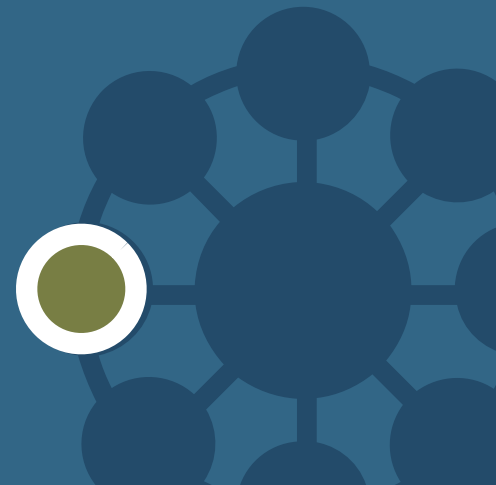
“This can't be happening...”





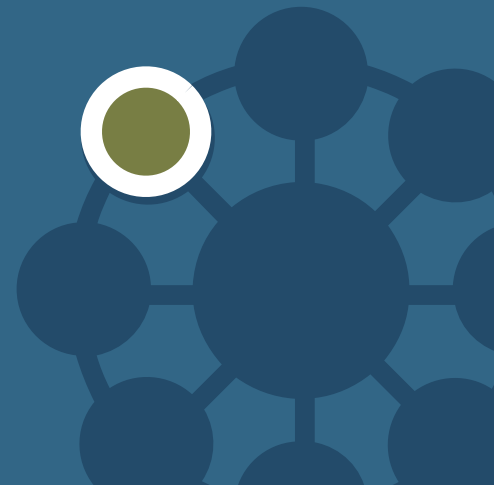
# 2 Anger.

“It’s not fair!”



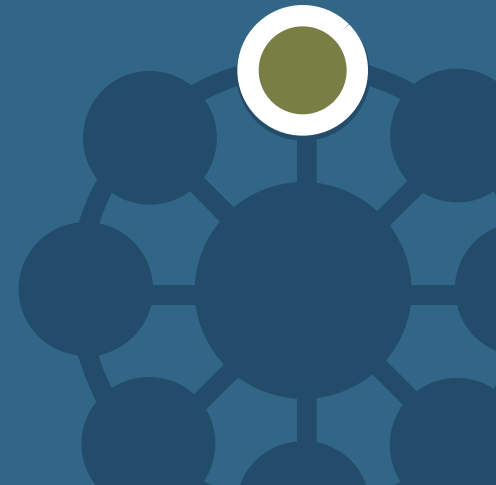
# 3 Bargaining.

“Can’t this wait a little more?”



# 4 Depression.

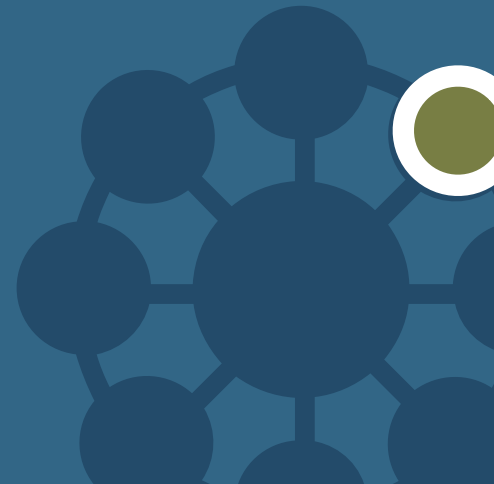
“What’s the point?!”





# 5 Acceptance.

“Everything will be OK!”





greenwash |'grēn,wä sh; -wô sh

*noun*

disinformation disseminated by an organization so as to present an environmentally responsible public image.

*“That oil company is, like, totally greenwashing.”*



# PEE IN THE SHOWER



(hippie)



(greenwasher)



# HOOTERS® GO GREEN Sweepstakes



## Your Chance to Win \$5,000 Cash! HOOTERS 'GO GREEN' 2<sup>ND</sup> CHANCE SWEEPSTAKES

### YOU CAN REGISTER ONCE PER DAY

Complete the on-line entry form below. We'll randomly select one grand prize winner from all entries received on or about 8/17/09 – to be awarded \$5,000 in 'Go Green' cash. The more you enter, the better your chances of winning.

[See Official Rules for complete details.](#)



### Get a 'Go Green' Instant Win Game Piece – Look for a Pair & Win:

Make sure to visit any participating Hooters Restaurant & receive a 'Go Green' Game Piece\* when you order of a Buffalo Shrimp Appetizer. Find a matching pair – and you could instantly win a GMC Sierra Hybrid or any of over 300,000 prizes including cash, gift cards & free appetizers!

(\*While supplies last. No purchase necessary. See official rules for complete details.)





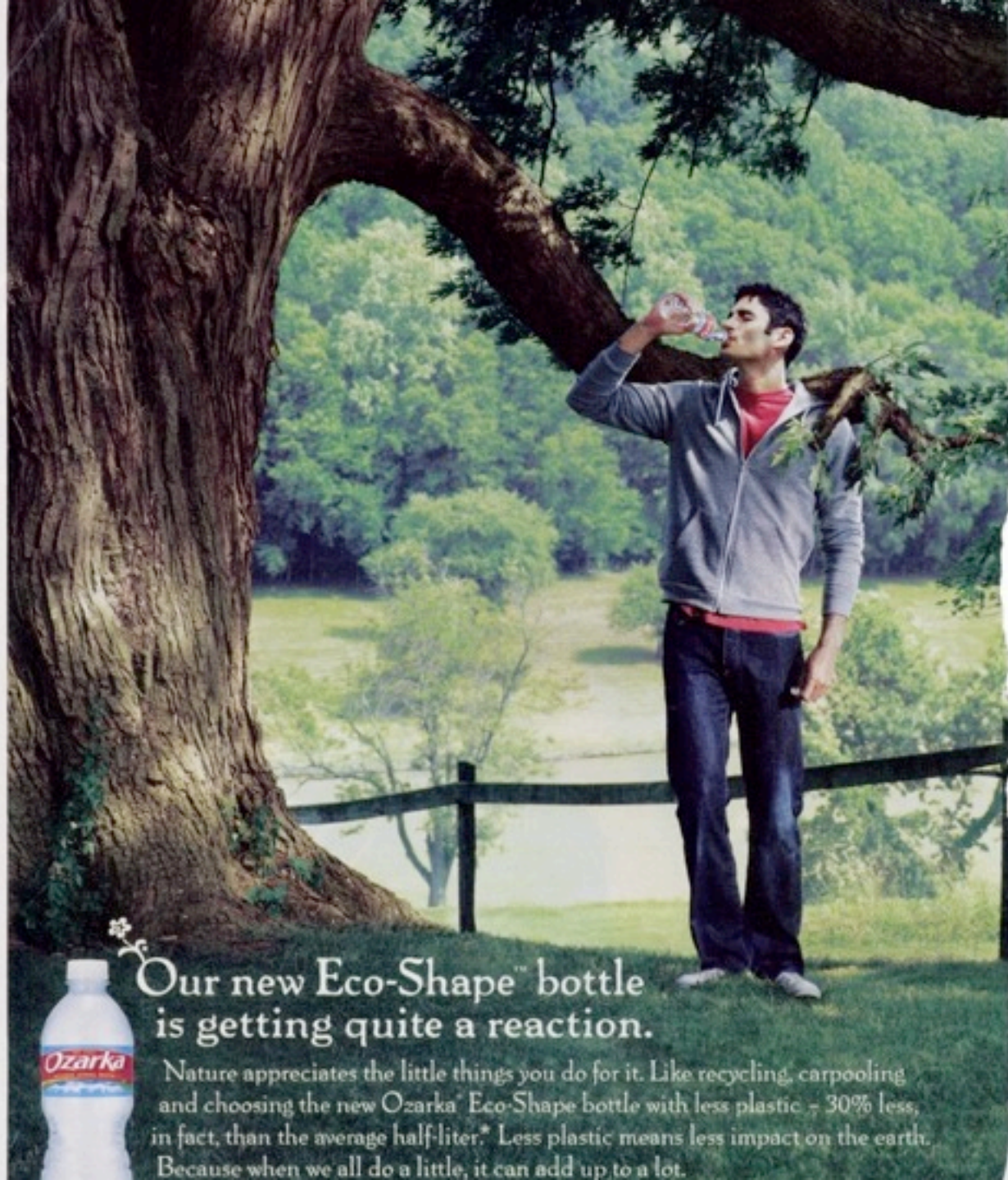
Every drop is green.




Every drop is green.







 Our new Eco-Shape™ bottle  
is getting quite a reaction.

Nature appreciates the little things you do for it. Like recycling, carpooling and choosing the new Ozarka® Eco-Shape bottle with less plastic - 30% less, in fact, than the average half-liter.\* Less plastic means less impact on the earth. Because when we all do a little, it can add up to a lot.





When we go green, we go all the way.



# DON'T THROW ANYTHING AWAY THERE IS NO AWAY.



IF ONLY WE HAD A MAGIC BIN THAT WE COULD THROW STUFF IN AND MAKE IT DISAPPEAR FOREVER, WHAT WE CAN DO IS FIND CREATIVE WAYS TO RECYCLE. WE USE OUR WASTE CO<sub>2</sub> TO GROW FLOWERS, AND OUR WASTE SULPHUR TO MAKE SUPER-STRONG CONCRETE. REAL ENERGY SOLUTIONS FOR THE REAL WORLD. [WWW.SHELL.COM/REALENERGY](http://WWW.SHELL.COM/REALENERGY)





# Eco-Dismol

100% ORGANIC  
UPSET TUMMY RELIEVER

USGBC Approved

**Soothing  
Relief for  
5 Symptoms**

- Greenwashing
- Bad Karma
- Bad Vibes
- Tofu Attacks
- Negativity



8 FL OZ (236 mL)





NO

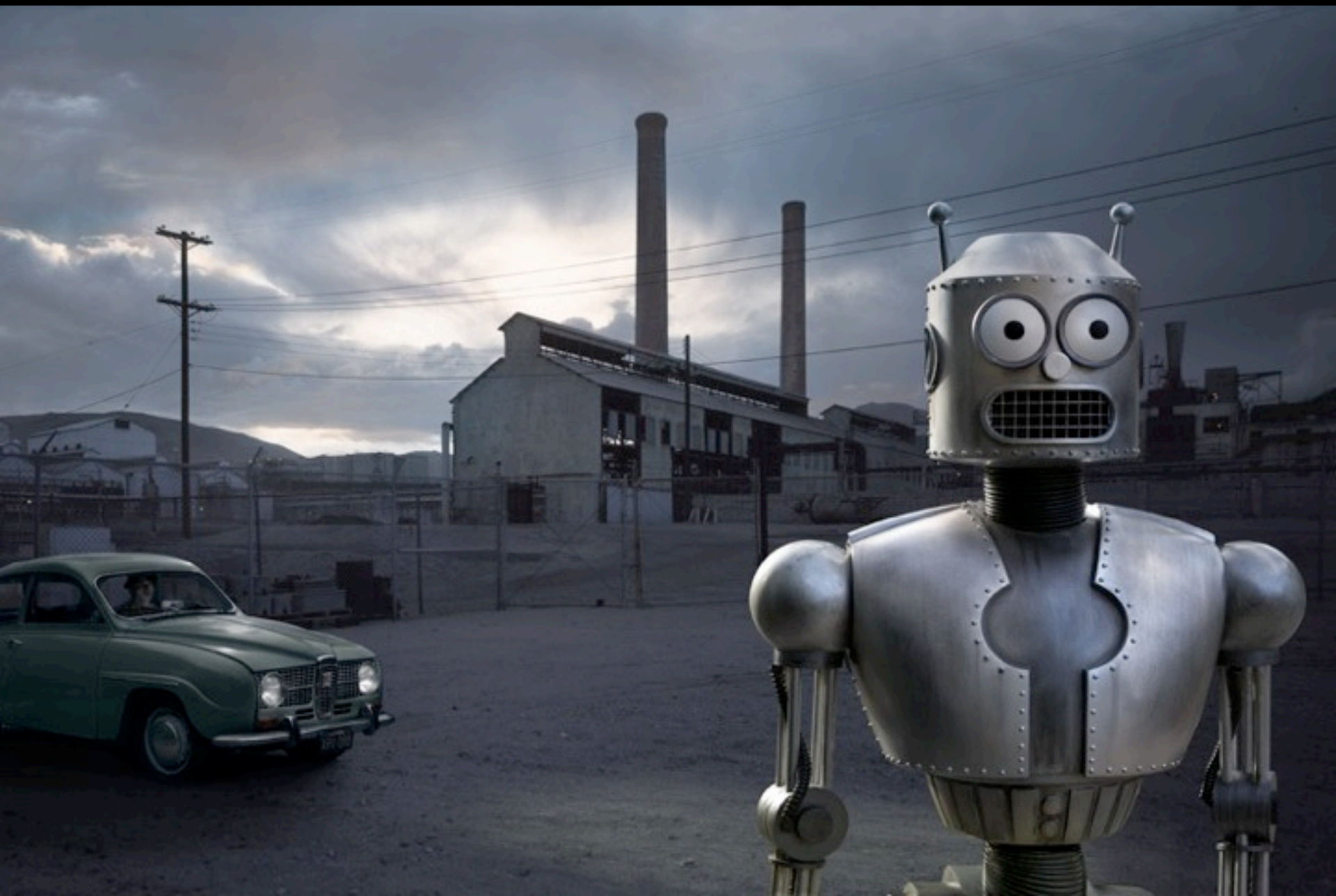
ECONOMY  
OF SCALE



# TETRIS

CONSTRUCTIONS SINCE 1985












# FORGOTTEN FUNCTIONS

 Recycle

 Compost

 Landfill

SMART







24  
HOUR

FITNESS

DUMB

POINT LON  
HANDICAP  
TO UPPER  
LOCATED  
24 HOUR



# Chinese Dog Food

A silver, metallic-looking dog bowl is centered in the background. It is filled to the brim with dry, brown, cylindrical kibble. The bowl sits on a white surface, and its reflection is visible below it. The text "Chinese Dog Food" is overlaid in a large, bold, brown font, with "Chinese" on the top line and "Dog Food" on the bottom line.



# Chinese Baby Food



Chinese  
Drywall





Chinese  
Quality

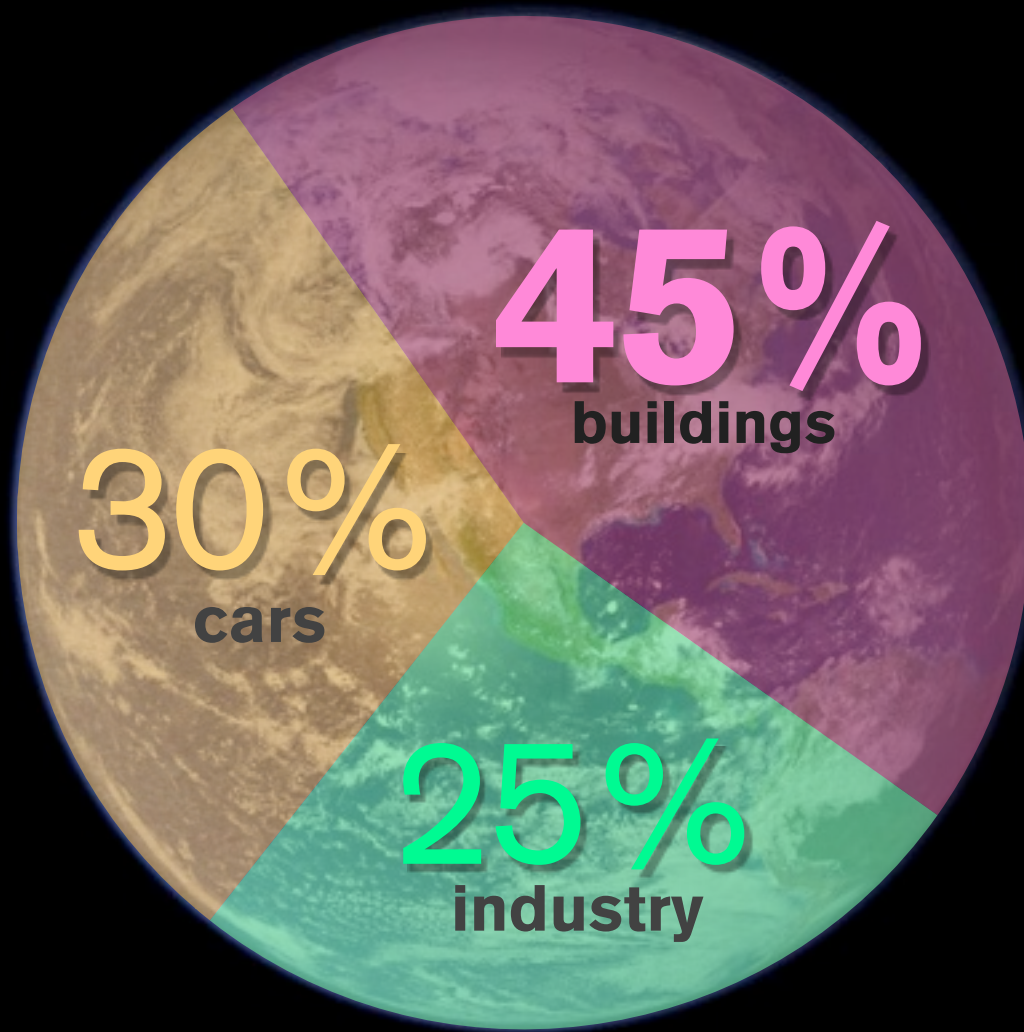


**MADE IN CHINA**

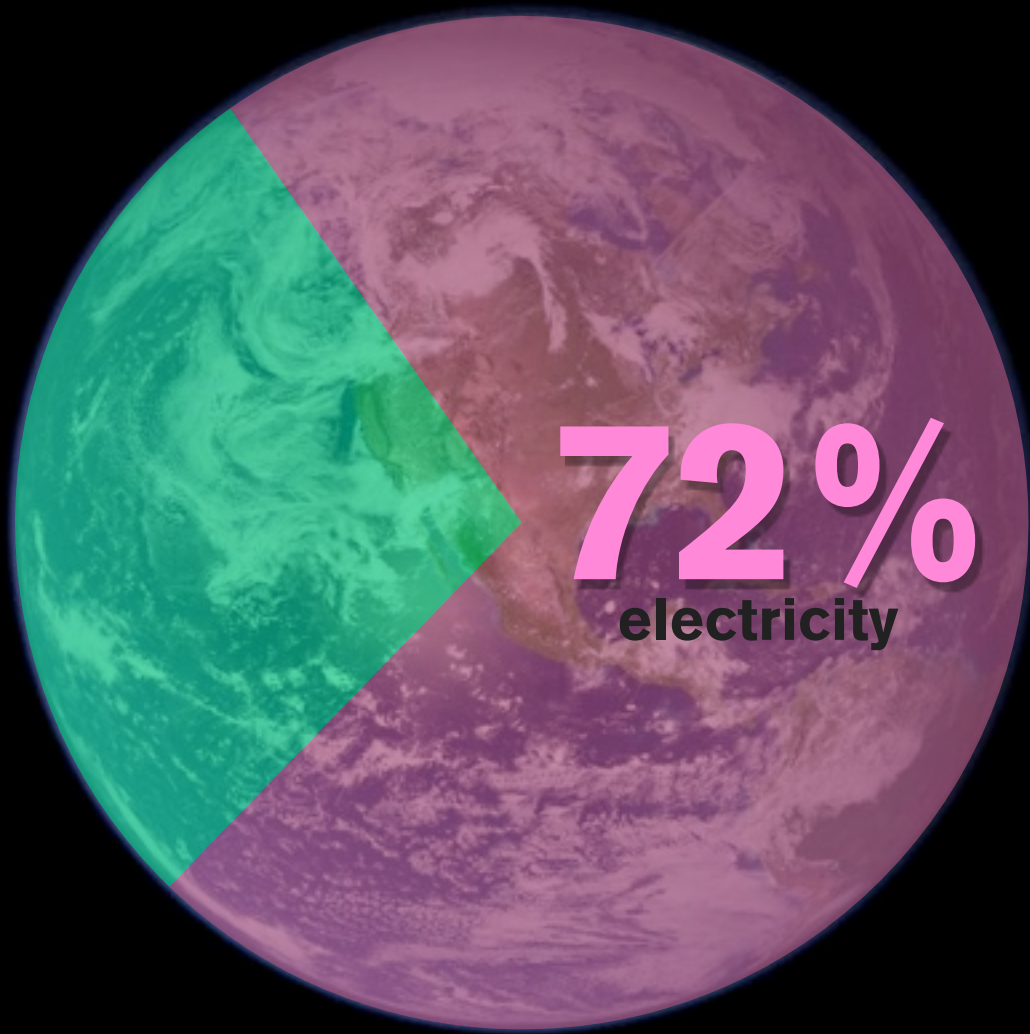
**DON'T VOTE**

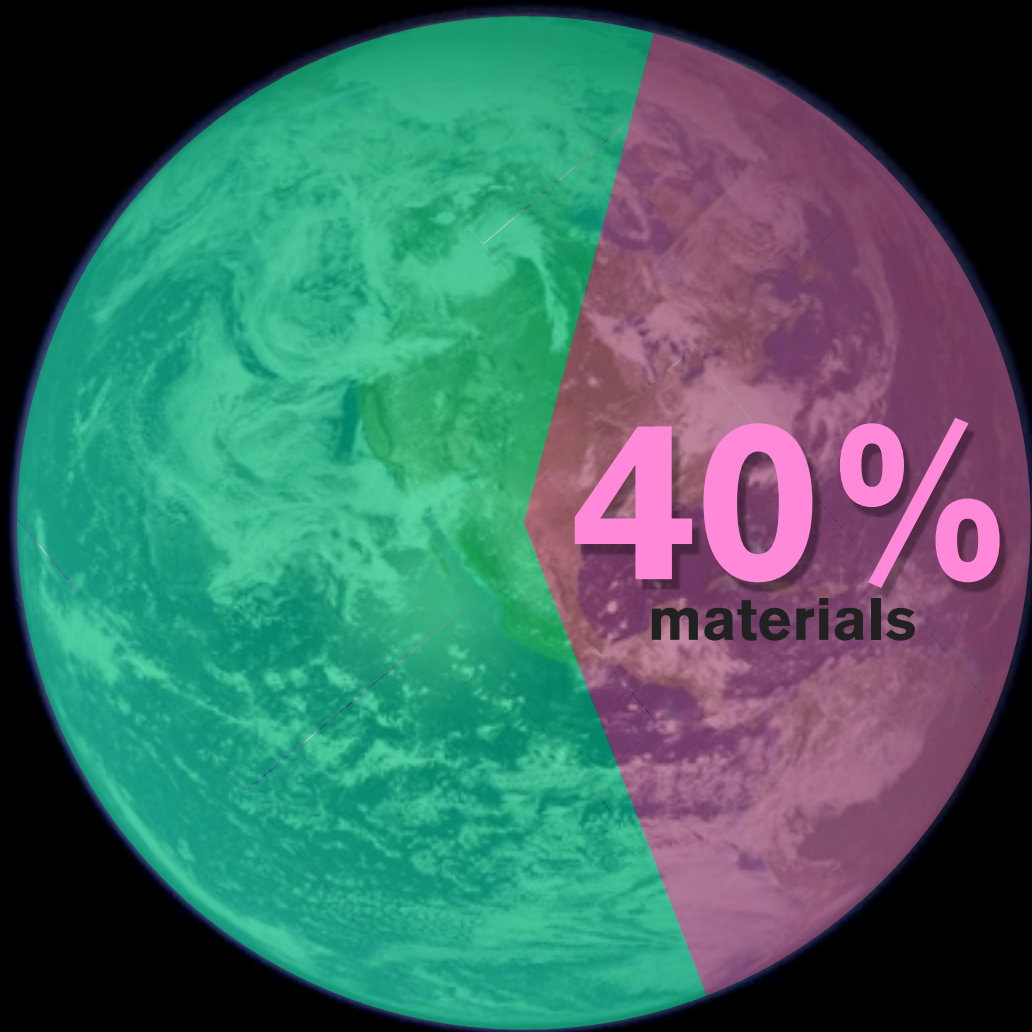
THINGS ARE FINE JUST THE WAY THEY ARE.



















21 de setembro. Dia da Árvore.











Palmanova, Italy





**STOP  
ENFORCING  
THE WRONG  
RULES**



An aerial photograph of a residential development. In the upper half, a row of modern houses with dark grey roofs and blue accents is visible. A paved road with several cars (white, black, red, blue) runs along the top. Below the houses, there's a row of smaller, simpler houses with light-colored roofs. The bottom half of the image shows a large, flat, sandy area, possibly a construction site or a cleared field. The text "MAKE A BOLD VISION" is overlaid in large, white, semi-transparent letters across the center of the image.

MAKE A  
BOLD  
VISION



A row of green rainwater harvesting tanks, likely for rainwater harvesting, is shown. The tanks are arranged in a line, and the text "CHANGE POLICY LATER" is overlaid in large, white, semi-transparent letters across the center. The background shows a wooden fence and some foliage.

# CHANGE POLICY LATER





**DON'T WAIT  
FOR THE  
DEVELOPER**



create your own

**DEVELOPMENT BOUNDARY**

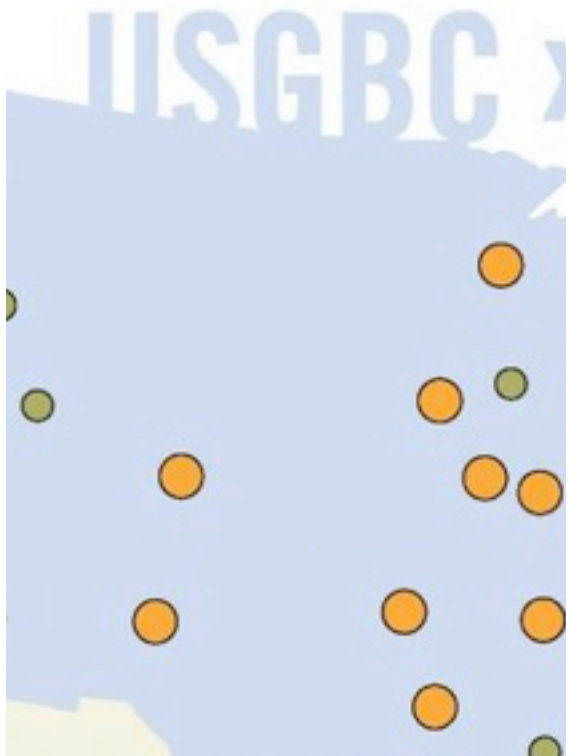




site selection  
development density  
brownfield redevelopment  
public transit access







Choose the next step







# YOU SGBC





## **MISSION** | **VISION**

Buildings and communities will regenerate and sustain the health and vitality of all life within a generation.

To transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy and prosperous environment that improves the quality of life.





# USGBC COMMUNITY

ENGINEERS NON PROFIT LEADERS INTERIOR DE  
PRODUCT MANUFACTURERS ARCHITECTS CODE OFF  
PROPERTY MANAGERS FEDERAL, LOCAL, AND STAT  
GROUNDSKEEPERS CAPITAL PLANNING STAFF GR  
LANDSCAPE ARCHITECTS UTILITY MANAGERS PLANNERS  
BUILDING TENANTS FINANCIAL PLANNERS BUILDING  
CODE OFFICIALS PRODUCT MANUFACTURES ENGINE  
BUILDING OWNERS INTERIOR DESIGNERS BUILDING  
OFFICIALS FEDERAL, LOCAL, AND STATE GOVERNMENT



USGBC's **national members**  
are organizations, corporations  
and institutions that make up a  
vibrant and diverse community.

15,229\*

# USGBC CHAPTERS

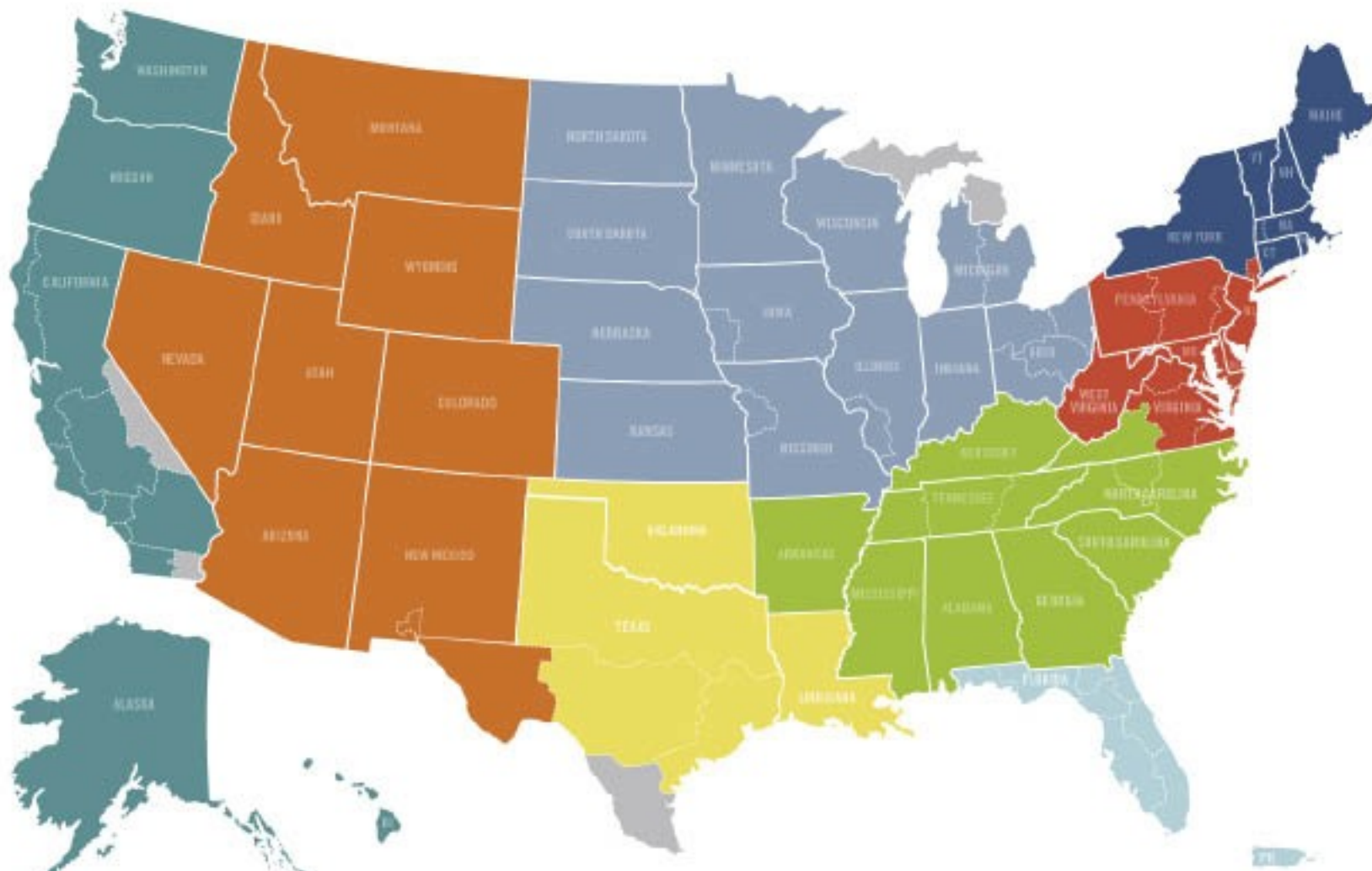
One community of individuals taking LOCAL action to deliver GLOBAL results through education, advocacy and outreach.

## NETWORK

79 Chapters

30,000+

Individual Members



As of March 2011







# Leadership in Energy & Environmental Design





## Nutrition Facts

Serving Size 8 crackers (28g)

Servings Per Container About 2

### Amount Per Serving

**Calories** 120 Calories From Fat 30

**% Daily Value\***

**Total Fat** 3.5g 5%

Saturated Fat 1g 5%

Trans Fat 0g

Polyunsaturated Fat 1.5g

Monounsaturated Fat 0.5g

**Cholesterol** 0mg 0%

**Sodium** 140mg 6%

**Total Carbohydrate** 22g 7%

Dietary Fiber Less than 1g 3%

Sugars 7g

**Protein** 2g

Vitamin A 0% • Vitamin C 0%

Calcium 10% • Iron 4%

\* Percent Daily Values are based on a 2,000 calorie diet.

**CONTINUED ON OTHER SIDE**



# Leadership in Energy and Environmental Design

A leading-edge system  
for certifying the  
greenest performing  
buildings in the world



**LEED® Facts**  
Building size 12,500 square ft  
Type of building  
LEED for Core & Shell Development  
Certification awarded July 27, 2006

<b>Platinum</b>	<b>49*</b>
Sustainable Sites	15/15
Water Efficiency	5/5
Energy & Atmosphere	12/15
Materials & Resources	6/9
Indoor Environmental Quality	10/13
Innovation & Design	3/5

\*Out of a possible 62 points



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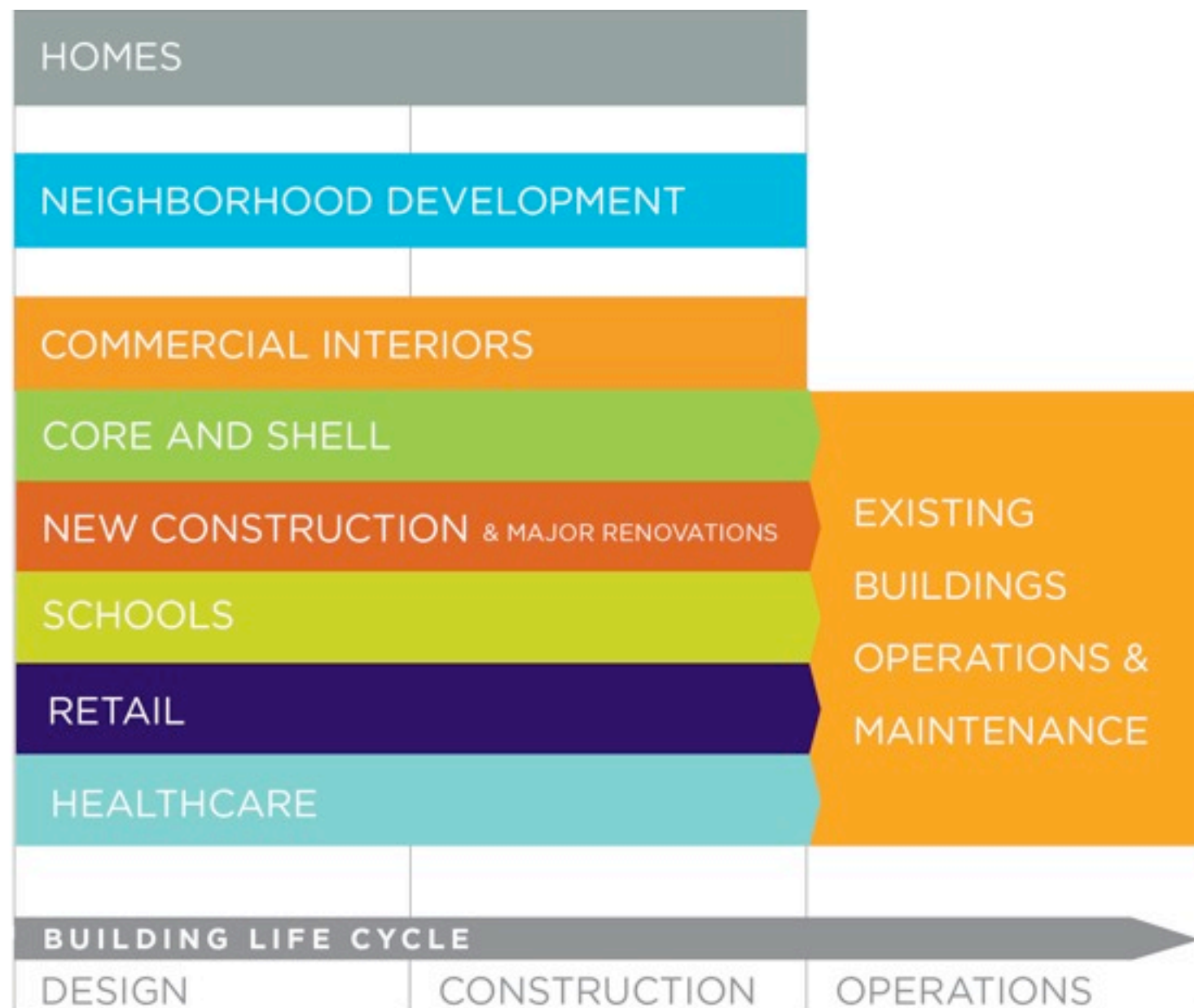
\*Out of a possible 62 points



# What Is Green Building?



# LEED address the complete lifecycle of buildings:





# Cross-Functional Team

ENGINEERS OPERATIONS AND MAINTENANCE TEAMS  
BUILDING OCCUPANTS BUILDING MANAGERS BUILDING  
FACULTY ENVIRONMENTAL HEALTH AND SAFETY STAFF  
GROUNDSKEEPERS CAPITAL PLANNING STAFF GROUNDSKEEPERS  
UTILITY MANAGERS INTERIOR DESIGNERS UTILITY MANAGERS  
CUSTODIAL TEAM PROPERTY MANAGERS CUSTOMERS  
HUMAN RESOURCES BUILDING OWNERS HUMAN RESOURCES  
PURCHASING STAFF ENVIRONMENTAL GROUPS  
ENGINEERS OPERATIONS AND MAINTENANCE TEAMS

**166,399** building professionals  
across all areas of practice have become LEED  
credentialed professionals.



As of March 2011



# LEED Is Consensus-Based

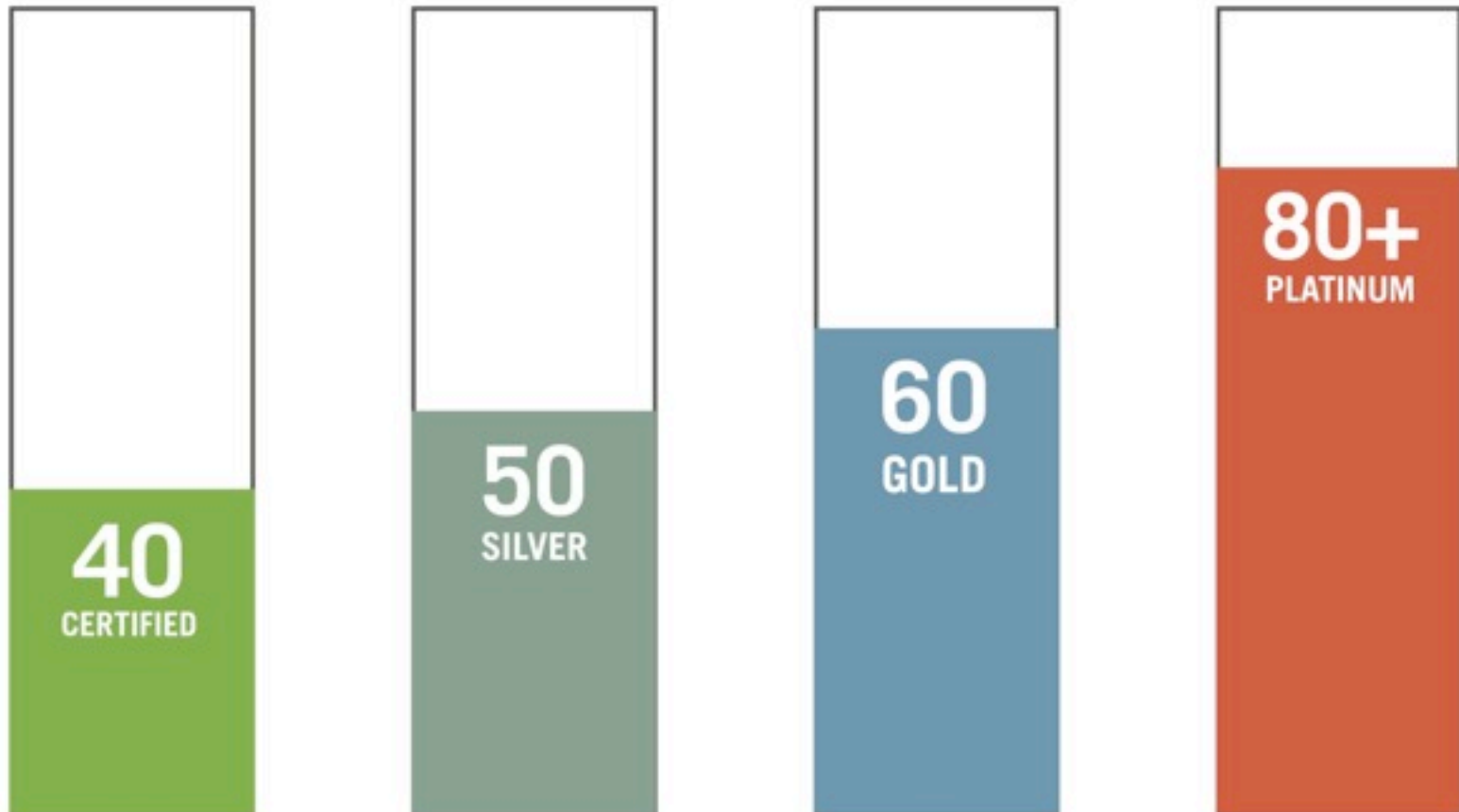


# USGBC has four levels of LEED:





# 100-POINT SCALE





U.S. GREEN BUILDING COUNCIL

LEED PLATINUM

2009



# Commercial LEED Registered Projects

Total Currently Registered

30,116\*

# Commercial LEED Certified Projects (Cumulative)

8,579\*



# Square Footage of Commercial LEED Certified Projects (Cumulative)

1.4 billion\*



\$67 savings  
\$4 increase  
per square foot





**Avalon Hotel**  
Portland, Oregon  
Silver - 2008



**Gaia Napa Valley**  
Napa, California  
Gold - 2007



**Hotel Terra**  
Teton Village, Wyoming  
Silver - 2008



**Vancouver Hotel**  
Vancouver, Washington  
Certified - 2006



**University of Maryland Inn**  
Adelphi, Maryland  
Certified - 2005



**Hyatt Olive 8**  
Seattle, Washington  
Certified - 2009



**Len Foote Hike Inn**  
Dawsonville, Georgia  
Gold - 2004



**CityFlats**  
Holland, Michigan  
Gold - 2009



**Orchard Garden**  
San Francisco, California  
Certified - 2007



**Palazzo**  
Las Vegas, Nevada  
Silver - 2008



**Proximity Hotel**  
Greensboro, North Carolina  
Platinum - 2008



**Snowmass**  
Aspen, Colorado  
Silver - 2005



**Starwood Element**  
Lexington, Massachusetts  
Gold - 2008



**The Ambrose**  
Santa Monica, California  
Silver - 2008



**Callaway Gardens**  
Pine Mountain, Georgia  
Certified - 2007



**Unity Village Hotel**  
Kansas City, Missouri  
Silver - 2007



**Avalon Hotel**  
Portland, Oregon  
Silver - 2008

**Gaia Napa Valley**  
Napa, California  
Gold - 2007

**Hotel Terra**  
Teton Village, Wyoming  
Silver - 2008

**Vancouver Hotel**  
Vancouver, Washington  
Certified - 2006

**University of  
Maryland Inn**  
Adelphi, Maryland  
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**Proximity Hotel**  
Greensboro, North Carolina  
Platinum - 2008

**Snowmass**  
Aspen, Colorado  
Silver - 2005

**85%**  
**similar**

**Starwood Element**  
Lexington, Massachusetts  
Gold - 2008

**The Ambrose**  
Santa Monica, California  
Silver - 2008

**Callaway Gardens**  
Pine Mountain, Georgia  
Certified - 2007

**Unity Village Hotel**  
Kansas City, Missouri  
Silver - 2007





## Sustainable Sites

- Credit 5.2 Maximize Open Space
- Credit 4.3 Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles
- Credit 6.2 Stormwater, Quality

## Water Efficiency

- Credit 1.2 Water Efficient Landscaping No Potable Use or No Irrigation
- Credit 2 Innovative Wastewater Technologies

## Energy & Atmosphere

- Credit 2 On-Site Renewable Energy (3 points)
- Credit 5 Measurement & Verification
- Credit 6 Green Power

## Materials & Resources

- Credit 2.2 Construction Waste Mgmt, Divert 75%
- Credit 5.2 Regional Materials, 20%
- Credit 7 Certified Wood

## Indoor Environmental Quality

- Credit 7.1 Thermal Design
- Credit 7.2 Thermal Verification



Sports Basement

LEED-Retail Pilot  
San Francisco, California



# Overview

---

- Dense urban neighborhood
- Rehab abandoned factory building
- Budget blown on seismic upgrades
- Full block site
- Potential solar access
- Extensive sidewalk to replace

## FACADE

GOAL: to prevent graffiti & be attractive

- reclaimed skis as wall
- green screen of ivy
- chalkboard paint & tray
- Anti-Graffiti Mural

## ROOF

GOAL: insulate or power

- Citizen Re Solar
- GreenGrid \$8/sf
- Potted Plants
- 1 KW wind turbines
- Billboard signage with community messaging

## ENTRY

GOAL: bring in people

- DOE Recycling Dropoff
- Artist in Residence work on Display
- Access to Community Spaces for local groups

## REAR LOT

GOAL: remove unsightly unused parking lot

- Bike park / Skate park
- Porous paving
- Edible Schoolyard
- Welded bike rack sculptures

## 15th STREET

GOAL: use dead end for good, remove homeless

- Pedestrian plaza
- City Car Share parking
- Refer to: Linden Alley in Hayes Valley

The San Francisco Community Challenge Grant Program (formerly the Neighborhood Beautification Fund) is a community resource funded by a percentage of business payroll taxes. It provides matching grants to local businesses to make greening improvements to their neighborhoods.

## SIDEWALK

GOAL: make something better than a DPW walk

- Ski pavers
- radial pavers
- glass cullet landscape

**Sports**  
**Basement**

# OPPORTUNITY AREAS

January 30, 2007



# LEED Categories

---

- ▶ Sustainable Sites: 14 Points
- ▶ Water Efficiency: 5
- ▶ Energy & Atmosphere: 17
- ▶ Materials & Resources: 13
- ▶ Indoor Environmental Quality: 15
- ▶ Innovation & Design Process: 5

# Category: Sustainable Sites

---

- Prerequisite: Construction Activity Pollution Prevention

---

- Credit 1 Site Selection
- Credit 2 Development Density
- Credit 3 Brownfield Redevelopment
- Credit 4.1 Public Transit Access
- Credit 4.2 Bicycle Storage & Changing Rooms
- Credit 4.3 Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles
- Credit 4.4 Alternative Transportation, Parking Capacity
- Credit 5.1 Protect or Restore Habitat
- Credit 5.2 Maximize Open Space
- Credit 6.1 Stormwater, Quantity
- Credit 6.2 Stormwater, Quality
- Credit 7.1 Heat Island Effect, Non-Roof
- Credit 7.2 Heat Island Effect, Roof
- Credit 8 Light Pollution Reduction



# Category: Sustainable Sites

## Obvious Points

- Prerequisite: Construction Activity Pollution Prevention
- 

- Credit 1 Site Selection
- Credit 2 Development Density
- Credit 3 Brownfield Redevelopment
- Credit 4.1 Public Transit Access
- Credit 4.2 Bicycle Storage & Changing Rooms
- Credit 4.3 Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles
- Credit 4.4 Alternative Transportation, Parking Capacity
- Credit 5.1 Protect or Restore Habitat
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- Credit 6.1 Stormwater, Quantity
- Credit 6.2 Stormwater, Quality
- Credit 7.1 Heat Island Effect, Non-Roof
- Credit 7.2 Heat Island Effect, Roof
- Credit 8 Light Pollution Reduction

# Category: Sustainable Sites

## Impossible Points

- Prerequisite: Construction Activity Pollution Prevention
- 

- Credit 1 Site Selection
- Credit 2 Development Density
- Credit 3 Brownfield Redevelopment
- Credit 4.1 Public Transit Access
- Credit 4.2 Bicycle Storage & Changing Rooms
- Credit 4.3 Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles
- Credit 4.4 Alternative Transportation, Parking Capacity
- Credit 5.1 Protect or Restore Habitat
- Credit 5.2 Maximize Open Space
- Credit 6.1 Stormwater, Quantity
- Credit 6.2 Stormwater, Quality
- Credit 7.1 Heat Island Effect, Non-Roof
- Credit 7.2 Heat Island Effect, Roof
- Credit 8 Light Pollution Reduction



# Category: Sustainable Sites

## Remaining Points

- Prerequisite: Construction Activity Pollution Prevention
- 

- Credit 1 Site Selection
- Credit 2 Development Density
- Credit 3 Brownfield Redevelopment
- Credit 4.1 Public Transit Access
- Credit 4.2 Bicycle Storage & Changing Rooms
- Credit 4.3 Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles
- Credit 4.4 Alternative Transportation, Parking Capacity
- Credit 5.1 Protect or Restore Habitat
- Credit 5.2 Maximize Open Space
- Credit 6.1 Stormwater, Quantity
- Credit 6.2 Stormwater, Quality
- Credit 7.1 Heat Island Effect, Non-Roof
- Credit 7.2 Heat Island Effect, Roof
- Credit 8 Light Pollution Reduction

# Category: Water Efficiency

---

- Prerequisite: None
- 

- Credit 1.1 Water Efficient Landscaping, Reduce by 50%
- Credit 1.2 Water Efficient Landscaping, No Potable Use or No Irrigation
- Credit 2 Innovative Wastewater Technologies
- Credit 3.1 Water Use Reduction, 20% Reduction
- Credit 3.2 Water Use Reduction, 30% Reduction

# Category: Water Efficiency

## Obvious Points

- 
- Prerequisite: None
- 
- Credit 1.1 Water Efficient Landscaping, Reduce by 50%
  - Credit 1.2 Water Efficient Landscaping, No Potable Use or No Irrigation
  - Credit 2 Innovative Wastewater Technologies
  - Credit 3.1 Water Use Reduction, 20% Reduction
  - Credit 3.2 Water Use Reduction, 30% Reduction



# Category: Water Efficiency

## Impossible Points

- 
- Prerequisite: None
- 
- Credit 1.1 Water Efficient Landscaping, Reduce by 50%
  - Credit 1.2 Water Efficient Landscaping, No Potable Use or No Irrigation
  - Credit 2 Innovative Wastewater Technologies
  - Credit 3.1 Water Use Reduction, 20% Reduction
  - Credit 3.2 Water Use Reduction, 30% Reduction

# Category: Water Efficiency

Remaining Points

- 
- Prerequisite: None

- 
- Credit 1.1 Water Efficient Landscaping, Reduce by 50%
  - Credit 1.2 Water Efficient Landscaping, No Potable Use or No Irrigation
  - Credit 2 Innovative Wastewater Technologies
  - Credit 3.1 Water Use Reduction, 20% Reduction
  - Credit 3.2 Water Use Reduction, 30% Reduction

# Category: Energy & Atmosphere

---

- Prerequisite 1: Fundamental Commissioning of the Building Energy Systems
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Fundamental Refrigerant Management
- 

- Credit 1 Optimize Energy Performance (10 points)
- Credit 2 On-Site Renewable Energy (3 points)
- Credit 3 Enhanced Commissioning
- Credit 4 Enhanced Refrigerant Management
- Credit 5 Measurement & Verification
- Credit 6 Green Power



# Category: Energy & Atmosphere

## Obvious Points

- 
- Prerequisite 1: Fundamental Commissioning of the Building Energy Systems
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Fundamental Refrigerant Management
- 

- Credit 1 Optimize Energy Performance (10 points)
- Credit 2 On-Site Renewable Energy (3 points)
- Credit 3 Enhanced Commissioning
- Credit 4 Enhanced Refrigerant Management
- Credit 5 Measurement & Verification
- Credit 6 Green Power

# Category: Energy & Atmosphere

## Impossible Points

- 
- Prerequisite 1: Fundamental Commissioning of the Building Energy Systems
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Fundamental Refrigerant Management
- 

- Credit 1 Optimize Energy Performance (10 points)
- Credit 2 On-Site Renewable Energy (3 points)
- Credit 3 Enhanced Commissioning
- Credit 4 Enhanced Refrigerant Management
- Credit 5 Measurement & Verification
- Credit 6 Green Power

# Category: Energy & Atmosphere

Remaining Points

- 
- Prerequisite 1: Fundamental Commissioning of the Building Energy Systems
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Fundamental Refrigerant Management
- 

- Credit 1 Optimize Energy Performance (7 points)
- Credit 2 On-Site Renewable Energy (1 point)
- Credit 3 Enhanced Commissioning
- Credit 4 Enhanced Refrigerant Management
- Credit 5 Measurement & Verification
- Credit 6 Green Power



# Category: Materials & Resources

---

- Prerequisite: Storage & Collection of Recyclables

---

- Credit 1.1 75% Building Reuse
- Credit 1.2 100% Building Reuse
- Credit 1.3 Building Reuse, 50% of Interior Non-Structural Elements
- Credit 2.1 Construction Waste Management, Divert 50%
- Credit 2.2 Construction Waste Management, Divert 75%
- Credit 3.1 Materials Reuse, 5%
- Credit 3.2 Materials Reuse, 10%
- Credit 4.1 Recycled Content, 10%  
(post-consumer + 1/2 pre-consumer)
- Credit 4.2 Recycled Content, 20%
- Credit 5.1 Regional Materials, 10%  
Extracted, Processed & Manufactured Regionally
- Credit 5.2 Regional Materials, 20%
- Credit 6 Rapidly Renewable Materials
- Credit 7 Certified Wood

# Category: Materials & Resources

## Obvious Points

- Prerequisite: Storage & Collection of Recyclables
- 

- Credit 1.1 75% Building Reuse
- Credit 1.2 100% Building Reuse
- Credit 1.3 Building Reuse, 50% of Interior Non-Structural Elements
- Credit 2.1 Construction Waste Management, Divert 50%
- Credit 2.2 Construction Waste Management, Divert 75%
- Credit 3.1 Materials Reuse, 5%
- Credit 3.2 Materials Reuse, 10%
- Credit 4.1 Recycled Content, 10%  
(post-consumer + 1/2 pre-consumer)
- Credit 4.2 Recycled Content, 20%
- Credit 5.1 Regional Materials, 10%  
Extracted, Processed & Manufactured Regionally
- Credit 5.2 Regional Materials, 20%
- Credit 6 Rapidly Renewable Materials
- Credit 7 Certified Wood

# Category: Materials & Resources

## Impossible Points

- Prerequisite: Storage & Collection of Recyclables
- 

- Credit 1.1 75% Building Reuse
- Credit 1.2 100% Building Reuse
- Credit 1.3 Building Reuse, 50% of Interior Non-Structural Elements
- Credit 2.1 Construction Waste Management, Divert 50%
- Credit 2.2 Construction Waste Management, Divert 75%
- Credit 3.1 Materials Reuse, 5%
- Credit 3.2 Materials Reuse, 10%
- Credit 4.1 Recycled Content, 10%  
(post-consumer + 1/2 pre-consumer)
- Credit 4.2 Recycled Content, 20%
- Credit 5.1 Regional Materials, 10%  
Extracted, Processed & Manufactured Regionally
- Credit 5.2 Regional Materials, 20%
- Credit 6 Rapidly Renewable Materials
- Credit 7 Certified Wood



# Category: Materials & Resources

## Remaining Points

- Prerequisite: Storage & Collection of Recyclables
- 

- Credit 1.1 75% Building Reuse
- Credit 1.2 100% Building Reuse
- Credit 1.3 Building Reuse, 50% of Interior Non-Structural Elements
- Credit 2.1 Construction Waste Management, Divert 50%
- Credit 2.2 Construction Waste Management, Divert 75%
- Credit 3.1 Materials Reuse, 5%
- Credit 3.2 Materials Reuse, 10%
- Credit 4.1 Recycled Content, 10%  
(post-consumer + 1/2 pre-consumer)
- Credit 4.2 Recycled Content, 20%
- Credit 5.1 Regional Materials, 10%  
Extracted, Processed & Manufactured Regionally
- Credit 5.2 Regional Materials, 20%
- Credit 6 Rapidly Renewable Materials
- Credit 7 Certified Wood

# Category: Indoor Environmental Quality

---

- Prerequisite 1: Minimum IAQ Performance
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
- 

- Credit 1 Outdoor Air Monitoring
- Credit 2 Increased Ventilation
- Credit 3.1 IAQ Management Plan,  
During Construction
- Credit 3.2 IAQ Management Plan,  
Before Occupancy
- Credit 4.1 Low-Emitting Adhesives
- Credit 4.2 Low-Emitting Paints
- Credit 4.3 Low-Emitting Carpeting
- Credit 4.4 Low-Emitting Composite Wood & Agrifiber
- Credit 5 Indoor Chemical & Pollutant Source Control
- Credit 6.1 Lighting Controls
- Credit 6.2 Thermal Controls
- Credit 7.1 Thermal Design
- Credit 7.2 Thermal Verification
- Credit 8.1 Daylight & Views, 75%
- Credit 8.2 Daylight & Views, 90%

# Category: IEQ

## Obvious Points

- 
- Prerequisite 1: Minimum IAQ Performance
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
- 
- |  |   |
|--|---|
| • Credit 1 Outdoor Air Monitoring                        | • Credit 5 Indoor Chemical & Pollutant Source Control |
| • Credit 2 Increased Ventilation                         | • Credit 6.1 Lighting Controls                        |
| • Credit 3.1 IAQ Management Plan,<br>During Construction | • Credit 6.2 Thermal Controls                         |
| • Credit 3.2 IAQ Management Plan,<br>Before Occupancy    | • Credit 7.1 Thermal Design                           |
| • Credit 4.1 Low-Emitting Adhesives                      | • Credit 7.2 Thermal Verification                     |
| • Credit 4.2 Low-Emitting Paints                         | • Credit 8.1 Daylight & Views, 75%                    |
| • Credit 4.3 Low-Emitting Carpeting                      | • Credit 8.2 Daylight & Views, 90%                    |
| • Credit 4.4 Low-Emitting Composite Wood & Agrifiber     |   |



# Category: IEQ

## Impossible Points

- Prerequisite 1: Minimum IAQ Performance
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
- 

- Credit 1 Outdoor Air Monitoring
- Credit 2 Increased Ventilation
- Credit 3.1 IAQ Management Plan,  
During Construction
- Credit 3.2 IAQ Management Plan,  
Before Occupancy
- Credit 4.1 Low-Emitting Adhesives
- Credit 4.2 Low-Emitting Paints
- Credit 4.3 Low-Emitting Carpeting
- Credit 4.4 Low-Emitting Composite Wood & Agrifiber
- Credit 5 Indoor Chemical & Pollutant Source Control
- Credit 6.1 Lighting Controls
- Credit 6.2 Thermal Controls
- Credit 7.1 Thermal Design
- Credit 7.2 Thermal Verification
- Credit 8.1 Daylight & Views, 75%
- Credit 8.2 Daylight & Views, 90%

# Category: IEQ

## Remaining Points

- Prerequisite 1: Minimum IAQ Performance
- Prerequisite 2: Environmental Tobacco Smoke (ETS) Control

- 
- Credit 1 Outdoor Air Monitoring
  - Credit 2 Increased Ventilation
  - Credit 3.1 IAQ Management Plan,  
During Construction
  - Credit 3.2 IAQ Management Plan,  
Before Occupancy
  - Credit 4.1 Low-Emitting Adhesives
  - Credit 4.2 Low-Emitting Paints
  - Credit 4.3 Low-Emitting Carpeting
  - Credit 4.4 Low-Emitting Composite  
Wood & Agrifiber
  - Credit 5 Indoor Chemical &  
Pollutant Source Control
  - Credit 6.1 Lighting Controls
  - Credit 6.2 Thermal Controls
  - Credit 7.1 Thermal Design
  - Credit 7.2 Thermal Verification
  - Credit 8.1 Daylight & Views, 75%
  - Credit 8.2 Daylight & Views, 90%

# Category: Innovation & Design

---

- Prerequisite: None
- 

- Credit 1.1 Innovation in Design
- Credit 1.2 Innovation in Design
- Credit 1.3 Innovation in Design
- Credit 1.4 Innovation in Design
- Credit 2 LEED Accredited Professional



# Category: Innovation & Design

## Obvious Points

- 
- Prerequisite: None

- 
- Credit 1.1 Innovation in Design: Retail Fixtures
  - Credit 1.2 Innovation in Design: Pilot Participation
  - Credit 1.3 Innovation in Design: Community Programs
  - Credit 1.4 Innovation in Design: Advanced Energy Management
  - Credit 2 LEED Accredited Professional



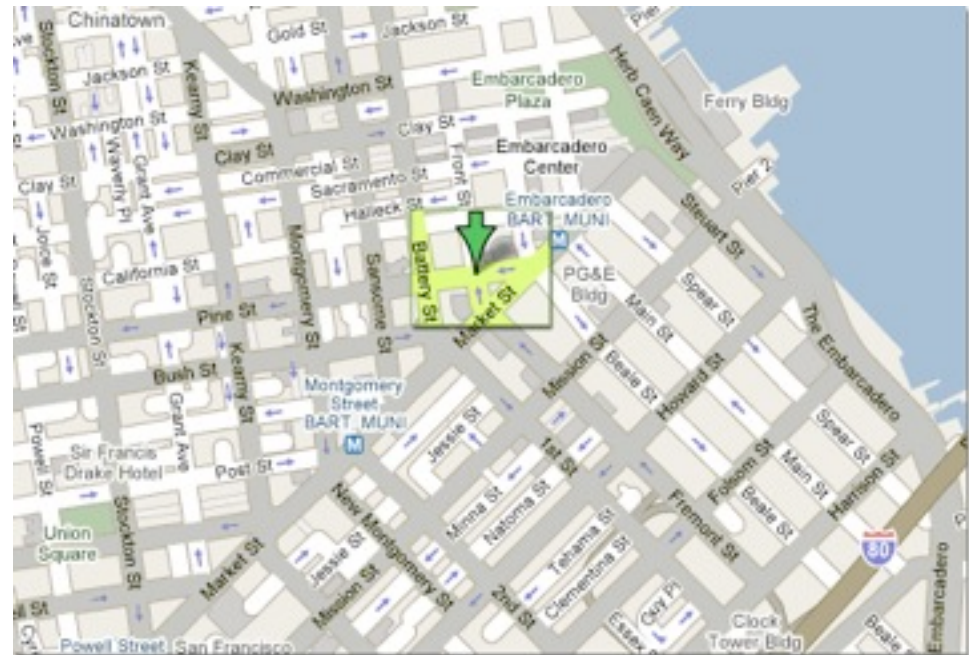
# Unico Tower

LEED-EB  
San Francisco, California

# Overview

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- Class A office tower/retail space
- 33 stories
- 402,500 rentable square feet
- Built in 1972
- Dense urban location







# Category: Sustainable Sites

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- Prerequisite 1: Erosion & Sedimentation Control
  - Prerequisite 2: Age of Building
- 

- |  |                               |
|--|-------------------------------|
| • Credit 1.1-2 Plan for Green Site       | • 5.1 Stormwater Mgmt - 25%   |
| • 2 High Density Building                | • 5.2 Stormwater Mgmt - 50%   |
| • 3.1 Public Transit Access              | • 6.1 Heat Island - Non-Roof  |
| • 3.2 Bicycle Storage & Changing Rooms   | • 6.2 Heat Island - Roof      |
| • 3.3 Alternative Vehicles               | • 7 Light Pollution Reduction |
| • 3.4 Car Pooling & Telecommuting        |                               |
| • 4.1 Protect or Restore Open Space, 50% |                               |
| • 4.2 Protect or Restore Open Space, 75% |                               |

# Category: Sustainable Sites

## Obvious Points

- 
- Prerequisite 1: Erosion & Sedimentation Control
  - Prerequisite 2: Age of Building
- 

- Credit 1.1-2 Plan for Green Site
- 2 High Density Building
- 3.1 Public Transit Access
- 3.2 Bicycle Storage & Changing Rooms
- 3.3 Alternative Vehicles
- 3.4 Car Pooling & Telecommuting
- 4.1 Protect or Restore Open Space, 50%
- 4.2 Protect or Restore Open Space, 75%
- 5.1 Stormwater Mgmt - 25%
- 5.2 Stormwater Mgmt - 50%
- 6.1 Heat Island - Non-Roof
- 6.2 Heat Island - Roof
- 7 Light Pollution Reduction



# Category: Sustainable Sites

## Impossible Points

- 
- Prerequisite 1: Erosion & Sedimentation Control
  - Prerequisite 2: Age of Building
- 

- |  |                               |
|--|-------------------------------|
| • Credit 1.1-2 Plan for Green Site       | • 5.1 Stormwater Mgmt - 25%   |
| • 2 High Density Building                | • 5.2 Stormwater Mgmt - 50%   |
| • 3.1 Public Transit Access              | • 6.1 Heat Island - Non-Roof  |
| • 3.2 Bicycle Storage & Changing Rooms   | • 6.2 Heat Island - Roof      |
| • 3.3 Alternative Vehicles               | • 7 Light Pollution Reduction |
| • 3.4 Car Pooling & Telecommuting        |                               |
| • 4.1 Protect or Restore Open Space, 50% |                               |
| • 4.2 Protect or Restore Open Space, 75% |                               |

# Category: Sustainable Sites

## Remaining Points

- 
- Prerequisite 1: Erosion & Sedimentation Control
  - Prerequisite 2: Age of Building
- 

- |  |                               |
|--|-------------------------------|
| • Credit 1.1-2 Plan for Green Site       | • 5.1 Stormwater Mgmt - 25%   |
| • 2 High Density Building                | • 5.2 Stormwater Mgmt - 50%   |
| • 3.1 Public Transit Access              | • 6.1 Heat Island - Non-Roof  |
| • 3.2 Bicycle Storage & Changing Rooms   | • 6.2 Heat Island - Roof      |
| • 3.3 Alternative Vehicles               | • 7 Light Pollution Reduction |
| • 3.4 Car Pooling & Telecommuting        |                               |
| • 4.1 Protect or Restore Open Space, 50% |                               |
| • 4.2 Protect or Restore Open Space, 75% |                               |

# Category: Water Efficiency

---

- Prerequisite 1: Minimum Water Efficiency
  - Prerequisite 2: Discharge Water Compliance
- 
- Credit 1.1      Water Efficient Landscaping - Reduce Potable Water Use by 50%
  - Credit 1.2      Water Efficient Landscaping - Reduce Potable Water Use by 95%
  - Credit 2      Innovative Wastewater Technologies
  - Credit 3.1      Water Use Reduction - 10% Reduction
  - Credit 3.2      Water Use Reduction - 20% Reduction



# Category: Water Efficiency

## Obvious Points

- 
- Prerequisite 1: Minimum Water Efficiency
  - Prerequisite 2: Discharge Water Compliance
- 
- Credit 1.1      Water Efficient Landscaping - Reduce Potable Water Use by 50%
  - Credit 1.2      Water Efficient Landscaping - Reduce Potable Water Use by 95%
  - Credit 2      Innovative Wastewater Technologies
  - Credit 3.1      Water Use Reduction - 10% Reduction
  - Credit 3.2      Water Use Reduction - 20% Reduction

# Category: Water Efficiency

## Impossible Points

- 
- Prerequisite 1: Minimum Water Efficiency
  - Prerequisite 2: Discharge Water Compliance
- 
- Credit 1.1      Water Efficient Landscaping - Reduce Potable Water Use by 50%
  - Credit 1.2      Water Efficient Landscaping - Reduce Potable Water Use by 95%
  - Credit 2      Innovative Wastewater Technologies
  - Credit 3.1      Water Use Reduction - 10% Reduction
  - Credit 3.2      Water Use Reduction - 20% Reduction

# Category: Water Efficiency

Remaining Points

- 
- Prerequisite 1: Minimum Water Efficiency
  - Prerequisite 2: Discharge Water Compliance
- 
- Credit 1.1 Water Efficient Landscaping - Reduce Potable Water Use by 50%
  - Credit 1.2 Water Efficient Landscaping - Reduce Potable Water Use by 95%
  - Credit 2 Innovative Wastewater Technologies
  - Credit 3.1 Water Use Reduction - 10% Reduction
  - Credit 3.2 Water Use Reduction - 20% Reduction



# Category: Energy & Atmosphere

---

- Prerequisite 1: Existing Building Commissioning
  - Prerequisite 2: Minimum Energy Performance - Energy Star 60
  - Prerequisite 3: Ozone Protection
- 

- Credit 1 Optimize Energy - Energy Star 63 or >
- 2.1 Renewable Energy - 3-15%
- 2.2 Renewable Energy - 6-30%
- 2.3 Renewable Energy - 9-45%
- 2.4 Renewable Energy - 12-60%
- 3.1 Operation - Staff Education
- 3.2 Systems Maintenance
- 3.3 Systems Monitoring
- 4 Ozone Protection
- 5.1-3 Performance Measurement - Enhanced Metering

# Category: Energy & Atmosphere

## Obvious Points

- Prerequisite 1: Existing Building Commissioning
  - Prerequisite 2: Minimum Energy Performance - Energy Star 60
  - Prerequisite 3: Ozone Protection
- 

- Credit 1 Optimize Energy - Energy Star 63 or >
- 2.1 Renewable Energy - 3-15%
- 2.2 Renewable Energy - 6-30%
- 2.3 Renewable Energy - 9-45%
- 2.4 Renewable Energy - 12-60%
- 3.1 Operation - Staff Education
- 3.2 Systems Maintenance
- 3.3 Systems Monitoring
- 4 Ozone Protection
- 5.1-3 Performance Measurement - Enhanced Metering

# Category: Energy & Atmosphere

## Impossible Points

- Prerequisite 1: Existing Building Commissioning
  - Prerequisite 2: Minimum Energy Performance - Energy Star 60
  - Prerequisite 3: Ozone Protection
- 

- Credit 1 Optimize Energy - Energy Star 63 or >
- 2.1 Renewable Energy - 3-15%
- 2.2 Renewable Energy - 6-30%
- 2.3 Renewable Energy - 9-45%
- 2.4 Renewable Energy - 12-60%
- 3.1 Operation - Staff Education
- 3.2 Systems Maintenance
- 3.3 Systems Monitoring
- 4 Ozone Protection
- 5.1-3 Performance Measurement - Enhanced Metering



# Category: Energy & Atmosphere

Remaining Points

- 
- Prerequisite 1: Existing Building Commissioning
  - Prerequisite 2: Minimum Energy Performance - Energy Star 60
  - Prerequisite 3: Ozone Protection
- 

- Credit 1 Optimize Energy - Energy Star 63 or >
- 2.1 Renewable Energy - 3-15%
- 2.2 Renewable Energy - 6-30%
- 2.3 Renewable Energy - 9-45%
- 2.4 Renewable Energy - 12-60%
- 3.1 Operation - Staff Education
- 3.2 Systems Maintenance
- 3.3 Systems Monitoring
- 4 Ozone Protection
- 5.1-3 Performance Measurement - Enhanced Metering

# Category: Materials & Resources

---

- Prerequisite 1.1: Source Reduction & Waste Stream Audit
  - Prerequisite 1.2: Source Reduction & Management - Storage & Collection
  - Prerequisite 2: Reduced Mercury in Light Bulbs
- 
- |  |   |
|--|---|
| • Credit 1.1 Construction Waste Management - 50%       | • 4.1 Sustainable Cleaning Products & Materials - 30%             |
| • 1.2 Construction Waste Management - 75%              | • 4.2 Sustainable Cleaning Products & Materials - 60%             |
| • 2.1-2 Optimize Use of Alternative Materials - 10-50% | • Credit 4.3 Sustainable Cleaning Products & Materials - 90%      |
| • 3.1 Optimize Use of IAQ Compliant Products - 45%     | • Credit 5.1 Occupant Recycling - 30/40/50% of Total Waste Stream |
| • 3.2 Optimize Use of IAQ Compliant Products - 90%     | • Credit 6 Additional Reduced Mercury in Light Bulbs              |

# Category: Materials & Resources

## Obvious Points

- 
- Prerequisite 1.1: Source Reduction & Waste Stream Audit
  - Prerequisite 1.2: Source Reduction & Management - Storage & Collection
  - Prerequisite 2: Reduced Mercury in Light Bulbs
- 
- |  |   |
|--|---|
| • Credit 1.1 Construction Waste Management - 50%       | • 4.1 Sustainable Cleaning Products & Materials - 30%             |
| • 1.2 Construction Waste Management - 75%              | • 4.2 Sustainable Cleaning Products & Materials - 60%             |
| • 2.1-2 Optimize Use of Alternative Materials - 10-50% | • Credit 4.3 Sustainable Cleaning Products & Materials - 90%      |
| • 3.1 Optimize Use of IAQ Compliant Products - 45%     | • Credit 5.1 Occupant Recycling - 30/40/50% of Total Waste Stream |
| • 3.2 Optimize Use of IAQ Compliant Products - 90%     | • Credit 6 Additional Reduced Mercury in Light Bulbs              |



# Category: Materials & Resources

## Impossible Points

- 
- Prerequisite 1.1: Source Reduction & Waste Stream Audit
  - Prerequisite 1.2: Source Reduction & Management - Storage & Collection
  - Prerequisite 2: **Reduced Mercury in Light Bulbs**
- 
- |   |   |
|---|---|
| • <b>Credit 1.1 Construction Waste Management - 50%</b> | • <b>4.1 Sustainable Cleaning Products &amp; Materials - 30%</b>  |
| • <b>1.2 Construction Waste Management - 75%</b>        | • <b>4.2 Sustainable Cleaning Products &amp; Materials - 60%</b>  |
| • 2.1-2 Optimize Use of Alternative Materials - 10-50%  | • Credit 4.3 Sustainable Cleaning Products & Materials - 90%      |
| • 3.1 Optimize Use of IAQ Compliant Products - 45%      | • Credit 5.1 Occupant Recycling - 30/40/50% of Total Waste Stream |
| • 3.2 Optimize Use of IAQ Compliant Products - 90%      | • Credit 6 Additional Reduced Mercury in Light Bulbs              |

# Category: Materials & Resources

## Remaining Points

- 
- Prerequisite 1.1: Source Reduction & Waste Stream Audit
  - Prerequisite 1.2: Source Reduction & Management - Storage & Collection
  - Prerequisite 2: Reduced Mercury in Light Bulbs
- 
- |  |   |
|--|---|
| • Credit 1.1 Construction Waste Management - 50%       | • 4.1 Sustainable Cleaning Products & Materials - 30%             |
| • 1.2 Construction Waste Management - 75%              | • 4.2 Sustainable Cleaning Products & Materials - 60%             |
| • 2.1-2 Optimize Use of Alternative Materials - 10-50% | • Credit 4.3 Sustainable Cleaning Products & Materials - 90%      |
| • 3.1 Optimize Use of IAQ Compliant Products - 45%     | • Credit 5.1 Occupant Recycling - 30/40/50% of Total Waste Stream |
| • 3.2 Optimize Use of IAQ Compliant Products - 90%     | • Credit 6 Additional Reduced Mercury in Light Bulbs              |

# Category: Indoor Environmental Quality

---

- Prerequisite 1: Outside Air Introduction & Exhaust Systems
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
  - Prerequisite 3: Asbestos Removal or Encapsulation
  - Prerequisite 4: PCB Removal
- 

- |  |                                   |
|--|-----------------------------------|
| • Credit 1 Outside Air Monitoring                        | • 7.1 Thermal Comfort             |
| • 2 Increased Ventilation                                | • 7.2 Monitoring System           |
| • 3 Construction IAQ Mgmt Plan                           | • 8.1-2 Daylight for 50/75%       |
| • 4.1 Documenting Impact - Absenteeism & Healthcare Cost | • 8.3-4 Views for 45/90%          |
| • 4.2 Documenting Other Impacts                          | • 9 Contemporary IAQ              |
| • 5.1 Reduce Particulates in Air                         | • 10.1 Entryway Systems           |
| • 5.2 Isolate Copy/Print Room                            | • 10.2 Isolate Janitorial Closets |
| • 6.1 Lighting Control                                   | • 10.3 Green Cleaning Policy      |
| • 6.2 Temperature Control                                | • 10.4-5 Green Pest Mgmt          |
|  | • 10.6 Green Cleaning Equipment   |



# Category: IEQ

## Obvious Points

- 
- Prerequisite 1: Outside Air Introduction & Exhaust Systems
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
  - Prerequisite 3: Asbestos Removal or Encapsulation
  - Prerequisite 4: PCB Removal
- 

- |  |                                   |
|--|-----------------------------------|
| • Credit 1 Outside Air Monitoring                        | • 7.1 Thermal Comfort             |
| • 2 Increased Ventilation                                | • 7.2 Monitoring System           |
| • 3 Construction IAQ Mgmt Plan                           | • 8.1-2 Daylight for 50/75%       |
| • 4.1 Documenting Impact - Absenteeism & Healthcare Cost | • 8.3-4 Views for 45/90%          |
| • 4.2 Documenting Other Impacts                          | • 9 Contemporary IAQ              |
| • 5.1 Reduce Particulates in Air                         | • 10.1 Entryway Systems           |
| • 5.2 Isolate Copy/Print Room                            | • 10.2 Isolate Janitorial Closets |
| • 6.1 Lighting Control                                   | • 10.3 Green Cleaning Policy      |
| • 6.2 Temperature Control                                | • 10.4-5 Green Pest Mgmt          |
|  | • 10.6 Green Cleaning Equipment   |

# Category: IEQ

## Impossible Points

- 
- Prerequisite 1: Outside Air Introduction & Exhaust Systems
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
  - Prerequisite 3: **Asbestos Removal or Encapsulation**
  - Prerequisite 4: PCB Removal
- 

- |  |  |
|--|--|
| • Credit 1 Outside Air Monitoring                        | • 7.1 Thermal Comfort                    |
| • 2 Increased Ventilation                                | • 7.2 Monitoring System                  |
| • <b>3 Construction IAQ Mgmt Plan</b>                    | • 8.1-2 Daylight for 50/ <b>75%</b>      |
| • 4.1 Documenting Impact - Absenteeism & Healthcare Cost | • 8.3-4 Views for 45/ <b>90%</b>         |
| • 4.2 Documenting Other Impacts                          | • 9 Contemporary IAQ                     |
| • <b>5.1 Reduce Particulates in Air</b>                  | • <b>10.1 Entryway Systems</b>           |
| • 5.2 Isolate Copy/Print Room                            | • <b>10.2 Isolate Janitorial Closets</b> |
| • <b>6.1 Lighting Control</b>                            | • <b>10.3 Green Cleaning Policy</b>      |
| • <b>6.2 Temperature Control</b>                         | • <b>10.4-5 Green Pest Mgmt</b>          |
|  | • <b>10.6 Green Cleaning Equipment</b>   |

# Category: IEQ

## Remaining Points

- 
- Prerequisite 1: Outside Air Introduction & Exhaust Systems
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
  - Prerequisite 3: Asbestos Removal or Encapsulation
  - Prerequisite 4: PCB Removal
- 

- |  |                                   |
|--|-----------------------------------|
| • Credit 1 Outside Air Monitoring                        | • 7.1 Thermal Comfort             |
| • 2 Increased Ventilation                                | • 7.2 Monitoring System           |
| • 3 Construction IAQ Mgmt Plan                           | • 8.1-2 Daylight for 50/75%       |
| • 4.1 Documenting Impact - Absenteeism & Healthcare Cost | • 8.3-4 Views for 45/90%          |
| • 4.2 Documenting Other Impacts                          | • 9 Contemporary IAQ              |
| • 5.1 Reduce Particulates in Air                         | • 10.1 Entryway Systems           |
| • 5.2 Isolate Copy/Print Room                            | • 10.2 Isolate Janitorial Closets |
| • 6.1 Lighting Control                                   | • 10.3 Green Cleaning Policy      |
| • 6.2 Temperature Control                                | • 10.4-5 Green Pest Mgmt          |
|  | • 10.6 Green Cleaning Equipment   |



# Category: Innovation & Design

---

- Prerequisite: None
- 
- Credit 1.1 Innovation in Design
  - Credit 1.2 Innovation in Design
  - Credit 1.3 Innovation in Design
  - Credit 2 LEED Accredited Professional

# Category: Innovation & Design

## Obvious Points

- 
- Prerequisite: None
- 
- Credit 1.1 Innovation in Design: recycled glass fountain in lobby
  - Credit 1.2 Innovation in Design: motion sensors in stairwells
  - Credit 1.3 Innovation in Design: high efficiency air handling units
  - Credit 2 LEED Accredited Professional



# Food for Thought

Full Bloom Bakery

LEED-CI  
Menlo Park, California



# Overview

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- Existing bakery facility
- Moving from smaller location
- Moving existing (old) equipment
- Suburban location



# Category: Sustainable Sites

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- Prerequisite: None

---

- ★ Credit 1 LEED Certified Building or pick 3 features:

*Brownfield Redevelopment*  
*Stormwater: Rate and Quantity*  
*Stormwater: Treatment*  
*Heat Island Reduction, Non-Roof*  
*Heat-Island Reduction, Roof*  
*Light Pollution Reduction*  
*Irrigation: Reduce by 50%*  
*Irrigation: No Potable Use*  
*Innovative Wastewater*  
*Reduce Water Use: 20%*  
*Onsite Renewable Energy*  
*Other Quantifiable Performance*

- Credit 2 Development Density and Community Connectivity

- Credit 3.1 Public Transit Access

- Credit 3.2 Bicycle Storage & Changing Rooms

- Credit 3.3 Parking Availability



# Category: Sustainable Sites

## Obvious Points

- Prerequisite: None
- 

- ★ Credit 1 LEED Certified Building or pick 3 features:

*Brownfield Redevelopment*  
*Stormwater: Rate and Quantity*  
*Stormwater: Treatment*  
*Heat Island Reduction, Non-Roof*  
*Heat-Island Reduction, Roof*  
*Light Pollution Reduction*  
*Irrigation: Reduce by 50%*  
*Irrigation: No Potable Use*  
*Innovative Wastewater*  
*Reduce Water Use: 20%*  
*Onsite Renewable Energy*  
*Other Quantifiable Performance*

- Credit 2 Development Density and Community Connectivity
- Credit 3.1 Public Transit Access
- Credit 3.2 Bicycle Storage & Changing Rooms
- Credit 3.3 Parking Availability

# Category: Sustainable Sites

## Impossible Points

- Prerequisite: None

★ Credit 1 **LEED Certified Building**  
or pick 3 features:

*Brownfield Redevelopment*  
*Stormwater: Rate and Quantity*  
*Stormwater: Treatment*  
*Heat Island Reduction, Non-Roof*  
*Heat-Island Reduction, Roof*  
*Light Pollution Reduction*  
*Irrigation: Reduce by 50%*  
*Irrigation: No Potable Use*  
*Innovative Wastewater*  
*Reduce Water Use: 20%*  
*Onsite Renewable Energy*  
*Other Quantifiable Performance*

- Credit 2 **Development Density and Community Connectivity**
- Credit 3.1 **Public Transit Access**
- Credit 3.2 **Bicycle Storage & Changing Rooms**
- Credit 3.3 **Parking Availability**

# Category: Sustainable Sites

Remaining Points

- Prerequisite: None

---

★ Credit 1 LEED Certified Building  
or pick 3 features:

*Brownfield Redevelopment*  
*Stormwater: Rate and Quantity*  
*Stormwater: Treatment*  
*Heat Island Reduction, Non-Roof*  
*Heat-Island Reduction, Roof*  
*Light Pollution Reduction*  
*Irrigation: Reduce by 50%*  
*Irrigation: No Potable Use*  
*Innovative Wastewater*  
*Reduce Water Use: 20%*  
*Onsite Renewable Energy*  
*Other Quantifiable Performance*

- Credit 2 Development Density and Community Connectivity
- Credit 3.1 Public Transit Access
- Credit 3.2 Bicycle Storage & Changing Rooms
- Credit 3.3 Parking Availability



# Category: Water Efficiency

---

- Prerequisite: None
- 

- Credit 1.1      Water Use Reduction - 20% Reduction
- Credit 1.2      Water Use Reduction - 30% Reduction

# Category: Water Efficiency

## Obvious Points

- 
- Prerequisite: None
- 

- Credit 1.1 Water Use Reduction - 20% Reduction
- Credit 1.2 Water Use Reduction - 30% Reduction

# Category: Water Efficiency

## Impossible Points

- 
- Prerequisite: None
- 

- Credit 1.1    Water Use Reduction - 20% Reduction
- Credit 1.2    Water Use Reduction - 30% Reduction

# Category: Water Efficiency

Remaining Points

- 
- Prerequisite: None
- 

- Credit 1.1    Water Use Reduction - 20% Reduction
- Credit 1.2    Water Use Reduction - 30% Reduction



# Category: Energy & Atmosphere

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- Prerequisite 1: Fundamental Commissioning
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Ozone Protection
- 

- |  |  |
|--|--|
| • Credit 1.1    Optimize Energy Performance - Lighting Power           | • Credit 2    Enhanced Commissioning                           |
| • Credit 1.2    Optimize Energy Performance - Lighting Controls        | • Credit 3    Energy Use, Measurement & Payment Accountability |
| • Credit 1.3    Optimize Energy Performance - HVAC                     | • Credit 4    Green Power                                      |
| • Credit 1.4    Optimize Energy Performance - Equipment and Appliances |  |

# Category: Energy & Atmosphere

## Obvious Points

- 
- Prerequisite 1: Fundamental Commissioning
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Ozone Protection
- 

- Credit 1.1 Optimize Energy Performance - Lighting Power
- Credit 1.2 Optimize Energy Performance - Lighting Controls
- Credit 1.3 Optimize Energy Performance - HVAC
- Credit 1.4 Optimize Energy Performance - Equipment and Appliances
- Credit 2 Enhanced Commissioning
- Credit 3 Energy Use, Measurement & Payment Accountability
- Credit 4 Green Power

# Category: Energy & Atmosphere

## Impossible Points

- 
- Prerequisite 1: Fundamental Commissioning
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Ozone Protection
- 

- Credit 1.1 Optimize Energy Performance - Lighting Power
- Credit 1.2 Optimize Energy Performance - Lighting Controls
- Credit 1.3 Optimize Energy Performance - HVAC
- Credit 1.4 Optimize Energy Performance - Equipment and Appliances
- Credit 2 Enhanced Commissioning
- Credit 3 Energy Use, Measurement & Payment Accountability
- Credit 4 Green Power

# Category: Energy & Atmosphere

Remaining Points

- 
- Prerequisite 1: Fundamental Commissioning
  - Prerequisite 2: Minimum Energy Performance
  - Prerequisite 3: Ozone Protection
- 

- |   |   |
|---|---|
| • Credit 1.1 Optimize Energy Performance - Lighting Power           | • Credit 2 Enhanced Commissioning                           |
| • Credit 1.2 Optimize Energy Performance - Lighting Controls        | • Credit 3 Energy Use, Measurement & Payment Accountability |
| • Credit 1.3 Optimize Energy Performance - HVAC                     | • Credit 4 Green Power                                      |
| • Credit 1.4 Optimize Energy Performance - Equipment and Appliances |   |



# Category: Materials & Resources

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- Prerequisite 1: Storage and Collection of Recyclables

---

- Credit 1.1 Long Term Lease
- 1.2 Reuse 40% of Interior Non-Structural Components
- 1.3 Reuse 60% of Interior Non-Structural Components
- 2.1 Construction Waste Management, 50%
- 2.2 Construction Waste Management, 75%
- 3.1 Resource Reuse, 5%
- 3.2 Resource Reuse, 10%
- 3.3 Resource Reuse, 30% Furniture and Furnishings
- 4.1 Recycled Content, 10%  
(post-consumer + 1/2 pre-consumer)
- 4.2 Recycled Content, 20%
- 5.1 Regional Materials, 20%
- 5.2 Regional Materials, 10% Extracted and Manufactured Regionally
- 6 Rapidly Renewable Materials
- 7 Certified Wood

# Category: Materials & Resources

## Obvious Points

- 
- Prerequisite 1: Storage and Collection of Recyclables
- 

- **Credit 1.1 Long Term Lease**
- 1.2 Reuse 40% of Interior Non-Structural Components
- 1.3 Reuse 60% of Interior Non-Structural Components
- **2.1 Construction Waste Management, 50%**
- **2.2 Construction Waste Management, 75%**
- **3.1 Resource Reuse, 5%**
- 3.2 Resource Reuse, 10%
- 3.3 Resource Reuse, 30% Furniture and Furnishings
- **4.1 Recycled Content, 10%**  
(post-consumer + 1/2 pre-consumer)
- 4.2 Recycled Content, 20%
- **5.1 Regional Materials, 20%**
- 5.2 Regional Materials, 10% Extracted and Manufactured Regionally
- **6 Rapidly Renewable Materials**
- 7 Certified Wood

# Category: Materials & Resources

## Impossible Points

- Prerequisite 1: Storage and Collection of Recyclables

- 
- Credit 1.1 Long Term Lease
  - 1.2 Reuse 40% of Interior Non-Structural Components
  - 1.3 Reuse 60% of Interior Non-Structural Components
  - 2.1 Construction Waste Management, 50%
  - 2.2 Construction Waste Management, 75%
  - 3.1 Resource Reuse, 5%
  - 3.2 Resource Reuse, 10%
  - 3.3 Resource Reuse, 30% Furniture and Furnishings
  - 4.1 Recycled Content, 10%  
(post-consumer + 1/2 pre-consumer)
  - 4.2 Recycled Content, 20%
  - 5.1 Regional Materials, 20%
  - 5.2 Regional Materials, 10% Extracted and Manufactured Regionally
  - 6 Rapidly Renewable Materials
  - 7 Certified Wood

# Category: Materials & Resources

Remaining Points

- Prerequisite 1: Storage and Collection of Recyclables

- 
- Credit 1.1 Long Term Lease
  - 1.2 Reuse 40% of Interior Non-Structural Components
  - 1.3 Reuse 60% of Interior Non-Structural Components
  - 2.1 Construction Waste Management, 50%
  - 2.2 Construction Waste Management, 75%
  - 3.1 Resource Reuse, 5%
  - 3.2 Resource Reuse, 10%
  - 3.3 Resource Reuse, 30% Furniture and Furnishings
  - 4.1 Recycled Content, 10%  
(post-consumer + 1/2 pre-consumer)
  - 4.2 Recycled Content, 20%
  - 5.1 Regional Materials, 20%
  - 5.2 Regional Materials, 10% Extracted and Manufactured Regionally
  - 6 Rapidly Renewable Materials
  - 7 Certified Wood



# Category: Indoor Environmental Quality

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- Prerequisite 1: Minimum IAQ Performance
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
- 

- Credit 1 Outside Air Monitoring
- 2 Increased Ventilation
- 3.1 Construction IAQ Mgmt Plan  
During Construction
- 3.2 Construction IAQ Mgmt Plan  
Before Occupancy
- 4.1 Low-Emitting Adhesives
- 4.2 Low-Emitting Paints
- 4.3 Low-Emitting Carpeting
- 4.4 Low-Emitting Composite Wood
- 4.5 Low-Emitting Furniture
- 5 Indoor Pollutant Source Control
- 6.1 Lighting Controls
- 6.2 Temperature Controls
- 7.1 Thermal Comfort
- 7.2 Thermal Comfort - Monitoring
- 8.1 Daylight 75% of Spaces
- 8.2 Daylight 90% of Spaces
- 8.3 Views 90% of Seated Spaces

# Category: IEQ

## Obvious Points

- 
- Prerequisite 1: Minimum IAQ Performance
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
- 

- Credit 1 Outside Air Monitoring
- 2 Increased Ventilation
- 3.1 Construction IAQ Mgmt Plan  
During Construction
- 3.2 Construction IAQ Mgmt Plan  
Before Occupancy
- 4.1 Low-Emitting Adhesives
- 4.2 Low-Emitting Paints
- 4.3 Low-Emitting Carpeting
- 4.4 Low-Emitting Composite Wood
- 4.5 Low-Emitting Furniture
- 5 Indoor Pollutant Source Control
- 6.1 Lighting Controls
- 6.2 Temperature Controls
- 7.1 Thermal Comfort
- 7.2 Thermal Comfort - Monitoring
- 8.1 Daylight 75% of Spaces
- 8.2 Daylight 90% of Spaces
- 8.3 Views 90% of Seated Spaces

# Category: IEQ

## Impossible Points

- 
- Prerequisite 1: Minimum IAQ Performance
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
- 

- Credit 1 Outside Air Monitoring
- 2 Increased Ventilation
- 3.1 Construction IAQ Mgmt Plan  
During Construction
- 3.2 Construction IAQ Mgmt Plan  
Before Occupancy
- 4.1 Low-Emitting Adhesives
- 4.2 Low-Emitting Paints
- 4.3 Low-Emitting Carpeting
- 4.4 Low-Emitting Composite Wood
- 4.5 Low-Emitting Furniture
- 5 Indoor Pollutant Source Control
- 6.1 Lighting Controls
- 6.2 Temperature Controls
- 7.1 Thermal Comfort
- 7.2 Thermal Comfort - Monitoring
- 8.1 Daylight 75% of Spaces
- 8.2 Daylight 90% of Spaces
- 8.3 Views 90% of Seated Spaces

# Category: IEQ

## Remaining Points

- 
- Prerequisite 1: Minimum IAQ Performance
  - Prerequisite 2: Environmental Tobacco Smoke (ETS) Control
- 

- Credit 1 Outside Air Monitoring
- 2 Increased Ventilation
- 3.1 Construction IAQ Mgmt Plan  
During Construction
- 3.2 Construction IAQ Mgmt Plan  
Before Occupancy
- 4.1 Low-Emitting Adhesives
- 4.2 Low-Emitting Paints
- 4.3 Low-Emitting Carpeting
- 4.4 Low-Emitting Composite Wood
- 4.5 Low-Emitting Furniture
- 5 Indoor Pollutant Source Control
- 6.1 Lighting Controls
- 6.2 Temperature Controls
- 7.1 Thermal Comfort
- 7.2 Thermal Comfort - Monitoring
- 8.1 Daylight 75% of Spaces
- 8.2 Daylight 90% of Spaces
- 8.3 Views 90% of Seated Spaces



# Category: Innovation & Design

---

- Prerequisite: None
- 
- Credit 1.1 Innovation in Design
  - Credit 1.2 Innovation in Design
  - Credit 1.3 Innovation in Design
  - Credit 2 LEED Accredited Professional

# Category: Innovation & Design

## Obvious Points

- 
- Prerequisite: None
- 
- Credit 1.1 Innovation in Design: composting
  - Credit 1.2 Innovation in Design: organic ingredients and products
  - Credit 1.3 Innovation in Design: organic food in employee cafe
  - Credit 2 LEED Accredited Professional



**QUESTIONS**